

FIRST QUANTUM
MINERALS LTD.

Cobre Panamá

Maintenance Work Order			
Work Order No.:	161442	Original Copy	
Start Date:	15/05/18	Priority	3
Counter Reading:		WO Type	PM proposal JDE
Cat. Code:	-. 011-Light Tower -.	Status	MA

Asset General Information				
Asset No.	LT157			
Manufacturer	Atlas Copco			
Model Desc.	LT157 HILIGHT V5+ ATLAS COPCO			
P&ID	P&ID			
Parent	LT157			
Warranty	NO			
Description of problem in Work Request				
1.	MANT. PREVENTIVO			
2.	MANT. PREVENTIVO			
Work Order Parts				
JDE Number	Spare Description	OP No.	Qty	Unit
Equipment and Instructions				
Tooling				
JDE Number	Spare Description		Qty	Unit
Labor Allocated				
Crew Size	Work Center		OPS	Est. Hours
Timesheet				
Employee Code	Name	Initial	OPS	Act. Hours
	Anthony De Leon	ADL		
Comments				
MANT. PREVENTIVO <i>Se Revisó la caja de mantenimiento de la LT157</i>				
MEC. ANTHONY DE LEON				

Supervisor Name: *Anthony De Leon*

Supervisor Signature: *[Signature]*

OK Page 1 of 2

FIRST QUANTUM
MINERALS LTD.

Cobre Panamá

Maintenance Work Order			
Work Order No.:	165345	Original Copy	
Start Date:	05/06/18	Priority	3
Counter Reading:		WO Type	PM proposal JDE
Cat. Code:	-. 083-Welding Machine -.	Status	MA

Asset General Information				
Asset No.	WM127			
Manufacturer	Miller			
Model Desc.	WM127 BOBCAT 250 MILLER			
P&ID	P&ID			
Parent	WM127			
Warranty	NO			
Description of problem in Work Request				
1.	MANT, PREVENTIVO			
2.	MANT, PREVENTIVO			
Work Order Parts				
JDE Number	Spare Description	OP No.	Qty	Unit
Equipment and Instructions				
Tooling				
JDE Number	Spare Description		Qty	Unit
Labor Allocated				
Crew Size	Work Center		OPS	Est. Hours
Timesheet				
Employee Code	Name	Initial	OPS	Act. Hours
Comments				
MANT, PREVENTIVO				
MEC. ELADIO GUTIERREZ				
Se le realizo el mantenimiento al equipo + se inspecciono completo el equipo esta operativo				

Supervisor Name:
Supervisor Signature

Printed 05/06/18



Maintenance Work Order			
Work Order No.:	164018	Re-Print	
Start Date:	28/05/18	Priority	3
Counter Reading:		WO Type	.
Cat. Code:	-.	Status	MH
	-.		
	-.		

Asset General Information				
Asset No.	SF009			
Manufacturer	Case			
Model Desc.	SF009 SR200 Case			
P&ID	P&ID			
Parent	SF009			
Warranty	NO			
Description of problem in Work Request				
1.	MANTENIMIENTO PREV 5306			
2.	MANTENIMIENTO PREV 5306			
Work Order Parts				
JDE Number	Spare Description	OP No.	Qty	Unit
Equipment and Instructions				
Tooling				
JDE Number	Spare Description		Qty	Unit
Labor Allocated				
Crew Size	Work Center		OPS	Est. Hours
Timesheet				
Employee Code	Name	Initial	OPS	Act. Hours
Comments				
MANTENIMIENTO PREVENTIVO HRS 5306 TRABAJO REALIZADO POR KEVIN DE GRACIA Y JOYSER SALDANA <i>Mantenimiento de SF009</i> <i>Falta de Aceite - diesel - Aire primario - Aire secundario - diesel -</i> <i>línea de diesel -</i>				

Supervisor Name:

Eduardo Gutierrez

Supervisor Signature

Printed 02/06/18

OK

FIRST QUANTUM
MINERALS LTD.

Cobre Panamá

Maintenance Work Order			
Work Order No.:	172020	Original Copy	
Start Date:	08/07/18	Priority	3
Counter Reading:		WO Type	PM proposal JDE
Cat. Code:	-. -. -.	Status	MH

Asset General Information				
Asset No.	CM003			
Manufacturer	Mack Trucks			
Model Desc.	CM003 GU813E Mack			
P&ID	P&ID			
Parent	CM003			
Warranty	NO			
Description of problem in Work Request				
1.	MANT. PREVENTIVO 8460			
2.	MANT. PREVENTIVO 8460			
Work Order Parts				
JDE Number	Spare Description	OP No.	Qty	Unit
Equipment and Instructions				
	MANT. PREVENTIVO 8460			
Tooling				
JDE Number	Spare Description		Qty	Unit
Labor Allocated				
Crew Size	Work Center		OPS	Est. Hours
Timesheet				
Employee Code	Name	Initial	OPS	Act. Hours
Comments				
MANTENIMIENTO PREVENTIVO				
HRS. 8460				
MEC: KEVIN DE GRACIA				
Mantenimiento - ingreso - inspección				

Supervisor Name:

Supervisor Signature

Printed 08/07/18

FIRST QUANTUM
MINERALS LTD.

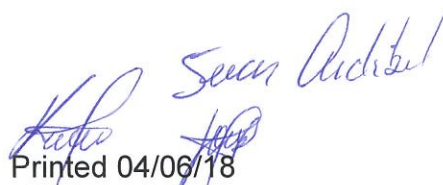
Cobre Panamá

Maintenance Work Order			
Work Order No.:	165216	Re-Print	
Start Date:	04/06/18	Priority	3
Counter Reading:		WO Type	Corrective Order
Cat. Code:	-. 012-Light Vehicles -.	Status	MH

Asset General Information				
Asset No.	PB001			
Manufacturer	Toyota			
Model Desc.	PB001 COASTER TOYOTA			
P&ID	P&ID			
Parent	PB001			
Warranty	NO			
Description of problem in Work Request				
1.	CAMBIO DE FILTROS			
2.	CAMBIO DE FILTROS			
Work Order Parts				
JDE Number	Spare Description	OP No.	Qty	Unit
Equipment and Instructions				
Tooling				
JDE Number	Spare Description		Qty	Unit
Labor Allocated				
Crew Size	Work Center		OPS	Est. Hours
Timesheet				
Employee Code	Name	Initial	OPS	Act. Hours
Comments				
CAMBIO DE FILTROS				
MEC. JUAN ARCHIBOLT				
<i>Manterimiento de motor</i> <i>Cambio de Aceite - Aire - diesel</i> <i>Escobillos</i>				
				

Supervisor Name:

Supervisor Signature



Printed 04/06/18

FIRST QUANTUM
MINERALS LTD.

Cobre Panamá

Maintenance Work Order			
Work Order No.:	165348	Original Copy	
Start Date:	05/06/18	Priority	3
Counter Reading:		WO Type	PM proposal JDE
Cat. Code:	-. 012-Light Vehicles -.	Status	MA

Asset General Information	
Asset No.	PT002
Manufacturer	Isuzu
Model Desc.	PT002 TRUCK ISUZU
P&ID	P&ID
Parent	PT002
Warranty	NO

Description of problem in Work Request	
1.	MANT. PREVENTIVO
2.	MANT. PREVENTIVO

Work Order Parts				
JDE Number	Spare Description	OP No.	Qty	Unit

Equipment and Instructions				
Tooling				
JDE Number	Spare Description	Qty	Unit	

Labor Allocated			
Crew Size	Work Center	OPS	Est. Hours

Timesheet				
Employee Code	Name	Initial	OPS	Act. Hours

Comments
MANTENIMIENTO PREVENTIVO MEC. JUAN ARCHIBOLT Falta de aceite - diesel - combustible - aire inspección engrasar

Supervisor Name:

Supervisor Signature

Juan Archibolt
Juan Archibolt
Printed 05/06/18

OK



Cobre Panamá

Maintenance Work Order			
Work Order No.:	170132	Re-Print	
Start Date:	29/06/18	Priority	3
Counter Reading:		WO Type	PM proposal JDE
Cat. Code:	012-Light Vehicles	Status	MH

Asset General Information				
Asset No.	LV056			
Manufacturer	Ford			
Model Desc.	LV056 RANGER FORD			
P&ID	P&ID			
Parent	LV056			
Warranty	NO			
Description of problem in Work Request				
1.	MANTENIMIENTO PREVENTIVO			
2.	MANTENIMIENTO PREVENTIVO			
Work Order Parts				
JDE Number	Spare Description	OP No.	Qty	Unit
Equipment and Instructions				
	MANTENIMIENTO PREVENTIVO			
Tooling				
JDE Number	Spare Description		Qty	Unit
Labor Allocated				
Crew Size	Work Center		OPS	Est. Hours
Timesheet				
Employee Code	Name	Initial	OPS	Act. Hours
	Anthony De Leon	ADL		
Comments				
MANTENIMIENTO PREVENTIVO				
MEC. ANTHONY DE LEON				

Supervisor Name:

Supervisor Signature

Printed 29/06/18

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FIRST QUANTUM
MINERALS LTD.

Cobre Panamá

Maintenance Work Order			
Work Order No.:	171170	Re-Print	
Start Date:	04/07/18	Priority	3
Counter Reading:		WO Type	PM proposal JDE
Cat. Code:	-. -. -.	Status	MH

Asset General Information	
Asset No.	MNL04
Manufacturer	JLG Industries
Model Desc.	MNL04 1250 AJP Deuz
P&ID	P&ID
Parent	MNL04
Warranty	NO

Description of problem in Work Request	
1.	MANT. PREVENTIVO /4201
2.	MANT. PREVENTIVO /4201

Work Order Parts				
JDE Number	Spare Description	OP No.	Qty	Unit

Equipment and Instructions	
	MANT. PREVENTIVO /4201

Tooling			
JDE Number	Spare Description	Qty	Unit

Labor Allocated			
Crew Size	Work Center	OPS	Est. Hours

Timesheet				
Employee Code	Name	Initial	OPS	Act. Hours
16679	Cesar Fernandez	CF		3 hours

Comments	
MANT. PREVENTIVO	
HRS. 4201	
.MEC. CESAR FERNANDEZ	
<i>Se Realizo mantenimiento y correccion de falla electrica</i>	

Supervisor Name:

Supervisor Signature

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Printed 10/07/18

FIRST QUANTUM
MINERALS LTD.

Cobre Panamá

Maintenance Work Order			
Work Order No.:	167390	Original Copy	
Start Date:	16/06/18	Priority	3
Counter Reading:	10.649	WO Type	PM proposal JDE
Cat. Code:	-. -. -.	Status	MH

Asset General Information				
Asset No.	CR026			
Manufacturer	Grove			
Model Desc.	CR026 RT 9130E GROVE			
P&ID	P&ID			
Parent	CR026			
Warranty	NO			
Description of problem in Work Request				
1.	MANT. PREVENTIVO /HRS, 10649			
2.	MANT. PREVENTIVO /HRS, 10649			
Work Order Parts				
JDE Number	Spare Description	OP No.	Qty	Unit
Equipment and Instructions				
	MANT. PREVENTIVO /HRS, 10649			
Tooling				
JDE Number	Spare Description		Qty	Unit
Labor Allocated				
Crew Size	Work Center		OPS	Est. Hours
Timesheet				
Employee Code	Name	Initial	OPS	Act. Hours
	Eulises Valdes			
	MIGUEL BELTRAN			
Comments				
MANT. PREVENTIVO				
HRS, 10649				
MEC. EULISES VALDES / MIGUEL BELTRAN				

Supervisor Name:

Supervisor Signature

Printed 16/06/18

Page 1 of 2

All Terrain Crane Service Inspection Checklist

CN Number	CX-026
Artisan	
Date	15-6-18
Mileage/Hours	10.649
Foreman	

Upper Section

Upper Engine:

			Comments	Not OK	OK
Engine Mountings	soportes del motor	Secured/Wear			✓
Engine Oil	Aceite de motor	Level/Leaks			✓
Coolant	refrigerante	Level/Leaks/Temp			✓
Radiator	Radiador	Clean/Cond/Cap			✓
Expansion Tank	Tanque de expansión	Level/Sight Glass			✓
V-Belts	Las correas trapezoidales	Cond/Adjustment			✓
Fan/Pulleys	Ventilador / Poleas	Condition			✓
Hoses	mangueras	Leaks/Seal			✓
Fuel System	Sistema de combustible	Leaks/Filter			✓
Exhaust	Escape	Mount/Cond			✓
Turbo	Turbo	Leaks/Intake			✓
Air Filters	Filtros de aire	Clean/Seal/Housing			✓

Upper Electrical

Eng Compartment	Eng Compartimiento	Latches/Cond			✓
Battery	Batería	Terminals/Level			✓
Battery Box	Caja de batería	Secured/Cond			✓
Starter	Motor de arranque	Wiring/Mounting			✓
Alternator	Alternador	Charge/Mount			✓
Work Lights	Luces de trabajo	Working/Cond			✓
Eng Sensors	Sensores Eng	Wiring/Condition			✓
Eng Wiring	Eng cableado	Secured/Tidy			✓
Hooter/Alarm	Hooter / Reloj	Working/Cond			✓
Beacons	balizas	Working/Cond			✓
Instruments	instrumentos	Working/Cond			✓
Wipers	limpiaparabrisas	Working/Cond			✓
Boom	Auge	Limits/Reels/Wiring			✓
Radio	Radio	Working			✓

Super Structure

Hyd Cooler Fan	Ventilador del refrigerador del Hyd	Working/Cond			✓
Hyd Cooler	hyd más frío	Clean/Leaks			✓
Hose Reels	Carretes de manguera	Leaks/Cond			✓
Hoist's	alzamiento de	Cond/Level/Leaks			✓
Wire Rope	cuerda de alambre	Cond/Greased			✓
Valves/Hoses	Válvulas / Mangueras	Leaks/Cond			✓
Covers/Guards	Fundas / Guardia	Cond/Secured			✓
Fly Jib	Fly Jib	Cracks/Secured			✓
Mirrors	espejos	Condition			✓
Counterweight	Contrapeso	Pins/Bolts Secured			✓
Boom Locks	Cerraduras de alge	Greased/Cond			✓
Boom Pins	bulones de la pluma	Secured/Cond			✓

Boom

Boom Assy	Boom d'Assy	Cracks/Condition			✓
Cylinders	cilindros	Leaks/Condition			✓
Sheaves	gavillas	Condition/Greased			✓
Hooks	Manos	Latch/Cond			✓

Upper Controls

Controls	controles	Working/Cond			✓
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Upper Operators Comp

Seat	Asiento	Condition			✓
Seat Belts	Cinturon de seguridad	Latch/Cond			✓
Windows	ventanas	Cracks/Cond			✓
Aircon/Fan	El aire acondicionado / ventilador	Working			✓
Door	Puerta	Handle/Slide			✓

Lower Section

Transmission

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Drive Train

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Electrical:

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Lower Hydraulic

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Chassis

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*

Operators Comp

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Controls

*

Lubricate

Transmission Oil	Acelte de la transmisión	Level/Leaks			✓
Filter	Filtrar	Cond/Seal			✓
Driveshafts	Ejes de accionamiento	U-Joints/Secured			✓
Hubs	hubs	Level/Leaks			✓
Steering Cylinders	Los cilindros de dirección	Wear/Leaks			✓
Gears	engranajes	Select/Power			✓
Spindle Boots	Botas de husillo	Crack/Grease			
Swivel	Girar	Leaks/Cond			✓
Trans Pressure	Presión Trans	Pressure on Gauge			✓
Service Brake	servicio de frenos	Shoes/Test			✓
Hubs	hubs	Oil Level/Leaks			✓
Park Brake	Freno de estacionamiento	Pads/Test			✓
Battery	Batería	Terminals/Level			✓
Battery Box	Caja de batería	Secured/Cond			✓
Starter	Motor de arranque	Wiring/Mounting			✓
Alternator	Alternador	Charge/Mount			✓
Work	Trabajo	Working/Cond			✓
Eng Sensors	Sensores Eng	Wiring/Condition			✓
Eng Wiring	Eng cableado	Secured/Tidy			✓
Tail Lights	Luces de la cola	Working/Cond			✓
Head Light	Jefe de luz	Working/Cond			✓
Hooter/Alarm	Hooter / Reloj	Working/Cond			✓
Beacons	balizas	Working/Cond			✓
Instruments	instrumentos	Working/Cond			✓
Wipers	limpiaparabrisas	Working/Cond			✓
Radio	Radio	Working			
Hyd Cooler Fan	Ventilador del refrigerador del Hyd	Working/Cond			✓
Hyd Cooler	hyd más frío	Clean/Leaks			✓
Hydraulic Tank	tanque hidráulico	Leaks/Cond/Cap			✓
Valves/Hoses	Válvulas / Mangueras	Leaks/Cond			✓
Covers/Guards	Fundas / Guardia	Cond/Secured			✓
Fuel Tank	Depósito de combustible	Level/Leaks			✓
Outriggers	estabilizadores	Pads/Leaks			✓
Outriggers	estabilizadores	Slide adjustment			✓
Outriggers	estabilizadores	Jack/Wear Strips			✓
Outriggers	estabilizadores	Greased			✓
Wheels	ruedas	Nuts Secured			✓
Tyres	Llantas	Cond/Pressure			✓
Air System	Sistema de aire	Leaks/No Water			✓
Suspension Cyl	Cil suspensión	Level//Secured			
Seat	Asiento	Condition			✓
Seat Belts	Cinturon de seguridad	Latch/Cond			✓
Windows	ventanas	Cracks/Cond			✓
Aircon/Fan	El aire acondicionado / ventilador	Working			✓
Door	Puerta	Handle/Slide			✓
Mirrors	espejos	Condition			✓
Controls	controles	Working/Cond			✓
Grease Points	Puntos de engrase	Clear/Greased			✓

Operator:		(sign)
Mechanic		(sign)
Foreman		(sign)

Brake Test

A service brake test should be performed by engaging 2nd gear, stepping on the service brake and accelerating to 2000rpm. Wheels should not turn
A park brake test should be performed by engaging 2nd gear, applying the park brake and accelerating to 2000rpm. Wheels should not turn!

FIRST QUANTUM
MINERALS LTD.

Cobre Panamá

Maintenance Work Order

Work Order No.:	173146	Original Copy	
Start Date:	14/07/18	Priority	3
Counter Reading:		WO Type	Corrective Order
Cat. Code:	-.	Status	MH
	-.		
	-.		

Asset General Information

Asset No.	TT031
Manufacturer	International
Model Desc.	TT031 7600SBA 6x4 Internationa
P&ID	P&ID
Parent	TT031
Warranty	NO

Description of problem in Work Request

1.	MANTENIMIENTO PREV.
2.	MANTENIMIENTO PREV.

Work Order Parts

JDE Number	Spare Description	OP No.	Qty	Unit
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Equipment and Instructions

	CAMBIO ALTERNADOR
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Tooling

JDE Number	Spare Description	Qty	Unit
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Labor Allocated

Crew Size	Work Center	OPS	Est. Hours
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Timesheet

Employee Code	Name	Initial	OPS	Act. Hours

Comments

MANTENIMIENTO PREVENTIVO
MEC. GUILLERMO JARAMILLO
KM
MANTENIMIENTO PREVENTIVO

Supervisor Name:

Supervisor Signature

Printed 14/07/18

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FIRST QUANTUM
MINERALS LTD.

Cobre Panamá

Maintenance Work Order			
Work Order No.:	169320	Re-Print	
Start Date:	27/06/18	Priority	3
Counter Reading:		WO Type	Corrective Order
Cat. Code:	-.	Status	MH
	-.		
	-.		

Asset General Information	
Asset No.	BH001
Manufacturer	John Deere
Model Desc.	BH001 310K John Deere
P&ID	P&ID
Parent	BH001
Warranty	NO

Description of problem in Work Request	
1.	REEMPLAZO DE FILTRO DE DIESEL
2.	REEMPLAZO DE FILTRO DE DIESEL

Work Order Parts				
JDE Number	Spare Description	OP No.	Qty	Unit

Equipment and Instructions	
	REEMPLAZO DE FILTRO DE DIESEL

Tooling			
JDE Number	Spare Description	Qty	Unit

Labor Allocated			
Crew Size	Work Center	OPS	Est. Hours

Timesheet				
Employee Code	Name	Initial	OPS	Act. Hours

Comments
REEMPLAZO DE FILTRO DE DIESEL
MEC. JUAN ARCHIBOLT / KEVIN DE GRACIA
OK ✓

Supervisor Name:

Supervisor Signature

Printed 07/07/18

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FIRST QUANTUM
MINERALS LTD.

Cobre Panamá

Maintenance Work Order

Work Order No.:	169184	Original Copy	
Start Date:	26/06/18	Priority	3
Counter Reading:		WO Type	PM proposal JDE
Cat. Code:	-.	Status	MH

Asset General Information

Asset No.	BT010
Manufacturer	International
Model Desc.	BT010 F2674 International
P&ID	P&ID
Parent	BT010
Warranty	NO

Description of problem in Work Request

1.	MANT. PREVENTIVO/KM.152256
2.	MANT. PREVENTIVO/KM.152256

Work Order Parts

JDE Number	Spare Description	OP No.	Qty	Unit
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Equipment and Instructions

	MANT. PREVENTIVO/KM.152256
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Tooling

JDE Number	Spare Description	Qty	Unit
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Labor Allocated

Crew Size	Work Center	OPS	Est. Hours
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Timesheet

Employee Code	Name	Initial	OPS	Act. Hours

Comments

MANTENIMIENTO E INSPECCION GENERAL	CR. alba Acosta alator
KM. 152265	Elba Acosta
MEC. HECTOR RODRIGUEZ	Comb

Supervisor Name:

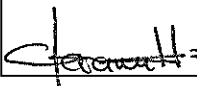
Supervisor Signature

Printed 04/07/18



Cobre Panamá

Maintenance Work Order			
Work Order No.:	172438	Original Copy	
Start Date:	10/07/18	Priority	3
Counter Reading:		WO Type	PM proposal JDE
Cat. Code:	-. -. -.	Status	MH

Asset General Information				
Asset No.	AC002			
Manufacturer	Atlas Copco			
Model Desc.	AC002 XA597JD Atlas Copco			
P&ID	P&ID			
Parent	AC002			
Warranty	NO			
Description of problem in Work Request				
1.	MANTENIMIENTO PREVENTIVO			
2.	MANTENIMIENTO PREVENTIVO			
Work Order Parts				
JDE Number	Spare Description	OP No.	Qty	Unit
Equipment and Instructions				
MANTENIMIENTO PREVENTIVO				
Tooling				
JDE Number	Spare Description		Qty	Unit
Labor Allocated				
Crew Size	Work Center		OPS	Est. Hours
Timesheet				
Employee Code	Name	Initial	OPS	Act. Hours
Comments				
MANTENIMIENTO PREVENTIVO				
MEC. GUILLERMO JARAMILLO				
MANTENIMIENTO COMPLETO				
				

Supervisor Name:

Supervisor Signature

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Printed 10/07/18